

State of Michigan



Pesticide



Advisory

Committee



Fiscal Year 2005 Annual Report

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PAC Fiscal Year 2005 Annual Report

The Natural Resources and Environmental Protection Act, Act 451 of the Public Acts of 1994, Part 83, Pesticide Control, is administered by the Michigan Department of Agriculture (MDA) through the Pesticide and Plant Pest Management Division (PPPM). The Pesticide Advisory Committee (PAC) was established under Section 8326 of Part 83, to advise and consult with the Director of the MDA in the administration of the Act.

Under the Act, the PAC is required to publish an annual report to the Governor and the Legislature. This report reflects the enforcement actions taken by PPPM during FY 2005 (October 1, 2004 to September 30, 2005).

The 14-member PAC includes five representatives from governmental and university agencies and nine representatives from citizen and industry groups. Representatives from the citizen and industry groups are private citizens chosen for their knowledge and technical expertise in specific areas set forth in Section 8326, Part 83 of Act 451. A current membership list is appended to this report.

Section 8326(4)(e) specifies four major areas to be detailed in this report, including:

1. A review of the recommendations of the PAC.
2. Recommendations regarding amendatory language for the Act.
3. Recommendations regarding resources necessary to adequately implement the Act.
4. A summary of annual enforcement actions taken under the Act.

MEETINGS

The Pesticide Advisory Committee (PAC) meets quarterly, with occasional supplementary meetings called by the Director to address special concerns in a timely manner. The meetings were held in October 2004, and January, April, and August 2005.

COMMITTEE RECOMMENDATIONS

Recommendations made to the Director by the Committee from October 2004 through August 2005.

MDA, Pesticide and Plant Pest Management Division's Regulation No. 636, Pesticide Applicators, Rule 17 states:

Upon written application to the director and after review by the pesticide advisory committee, the director may authorize the incidental use of general-use pesticides by noncertified or nonregistered applicators if the person is not regularly engaged to apply pesticides for hire, the pesticide application is not the primary work assignment, and the pesticide application is an integral part of another operation.

On September 1, 2004, Detroit Edison requested authorization for incidental use of a pesticide for their personnel applying sodium hypochlorite to various process water streams at its power plants throughout Southeastern Michigan for the following reasons. The application is automated and is not one person's primary work assignment. The function is less than 5% of the employee's responsibilities. The employees are certified as Wastewater Operators by the Michigan Department of Environmental Quality (DEQ).

In reviewing the request, PAC members asked questions about the operation of the automated equipment and the process, handling procedures for the bulk pesticide, and the risk to employees. The employees do not mix the chemicals. They only operate the automatic/enclosed dispensing equipment. Detroit Edison also discussed dilution rates and DEQ requirements for release of treated water into the waterways of Michigan. If repairs are necessary, employees use proper protective equipment (PPE), such as gloves, facemasks, and aprons and utilize valves to close equipment in the effected areas. Employees receive training concerning worker right-to-know provision under OSHA. The chemicals used to clean algae in the machinery are more efficient than manual cleaning.

On January 21, 2005, the PAC recommended that MDA accept the Incidental Use Exemption request as submitted with review of the request in one year's time. Detroit Edison was informed by letter on February 2, 2005 of the approval of their request. The letter will further indicate that the request will be reviewed annually and that MDA regional staff may make a site inspection at one of the plants.

COMMITTEE DISCUSSIONS

- *Ethylene Dibromide*: The committee was informed by MDA that ethylene dibromide (EDB) was found in groundwater near Matawan, MI. EDB was a fumigant commonly used for nematode control prior to 1983. The contamination most likely resulted from an application made in the early 1980's when MDA found grape root knot nematode on a farm in Matawan. This was the only place in the world that the grape nematode had been located. MDA assisted with an eradication effort by contracting for the application of EDB to approximately 30 acres. The fumigation occurred two weeks before EPA cancelled the use of this product as a soil fumigant (1983).

The finding resulted from routine groundwater sampling conducted by the Environmental Stewardship Division for EDB. Dr. George Bird, Michigan State University, suggested the location of the sampling. Dr. Bird was the person who identified the nematode and assisted in the eradication.

MDA instituted an emergency response plan after the initial positive sample was noted. Additional sampling of 35 adjacent residential wells in the Mattawan area was conducted. The City of Mattawan was made aware of the positive EDB sample. However, city officials were also informed that the water from the contaminated EDB site was not flowing toward the city's well.

Since MDA was involved in the EDB application, an outside laboratory in Kalamazoo analyzed the samples to avoid a perception of a conflict of interest. Environmental sampling was completed by October 17, 2004 and a final report issued October 29, 2004. This groundwater envelope monitoring response indicated that no municipal wells in the area were contaminated with EDB and that only one additional well near the initial discovery was slightly contaminated. Therefore, very little off-site migration of the contaminant was seen in the nearby wells and the community at large was unaffected.

- *Gypsy Moth Suppression Program*: The Gypsy Moth Suppression Program - is a cooperative effort between MDA and county governments. In 2004, 9 counties were in the program and 24,581 acres were treated. Only 5 counties and 4,316 acres were enrolled in the program in 2005. This amounts to an 80% decrease in the number of acres. Biological controls such as the NPV virus and a parasitic entomophagus fungus account for some of the decline in the gypsy moth population. As a likely result of the warm, dry spring, virus and fungus do not appear to have had a significant impact on overall state populations of gypsy moth in 2005. Population monitoring during the summer of 2005 suggested that the 2006 suppression program would include significantly larger acreage.
- *Emerald Ash Borer (EAB)* – EAB continued to be a top priority for the MDA throughout fiscal year 2005. During 2004, the Emerald Ash Borer Detection Tree Project detected 9 new county infestations outside the Core Zone September 29, 2004. By the end of 2005, 10 additional infestations were identified. MDA also

identified “value added opportunity” industries, such as ax handles, lumber, etc. After the bark and ¼ inch of the tree is removed, utilization of the ash logs, reduces the amount of shredded material at the marshalling yards and provides resources for various industries.

During FY 2005, 7 counties were added to the previous 13 quarantined counties. There are 16 isolated infestations outside the quarantined area, most of which can be traced to unauthorized movement of firewood. The division is enlisting private industry’s (paper mills, wood utilization) assistance. MDA and the Michigan Department of Management and Budget have developed a voluntary community facilitated tree removal program in Southeastern Michigan. Statewide contracts will allow municipalities to coordinate ash tree removals on public and private properties. These contracts will be more cost effective for the homeowner by offering removal service at a standard rate. Legislation was passed to allow an increase in the penalties for violations of quarantines.

- *Migrant Issues:* The Michigan Migrant Legal Assistance Project (MLAP), Inc. gave a report on a worker exposure incident in Oceana County. The exposure was reported after an employee went to her doctor for her yearly exam and complained of problems breathing. The complainant had not reported the incident directly to MDA because of fear of losing her job. Upon receiving the complaint from MLAP, MDA conducted an investigation. MDA did find a label violation and a pesticide incident (6a2) report was submitted to EPA Region 5. The Department of Labor and Economic Growth (DLEG) also conducted an investigation. A copy of a letter that was sent to the owner of the establishment by DLEG concerning their complaint investigation was distributed to the committee. Such cases of worker exposure incidents to pesticides are also to be sent to the Department of Community Health.
- *Pesticide Education Program:* The MSU Pesticide Education Program (PSEP) works with the MDA Pesticide Section to carry out applicator certification and training. As its part of a Memorandum of Understanding, the program conducts training and education with respect to the following objectives:
 1. To develop and revise applicator-training manuals, and provide exam questions,
 2. Monitor and maintain stocks of bulletins in the MSU system,
 3. Develop other pesticide related materials as requested and needed,
 4. Oversee the Registered Technician Training Program,
 5. Host Inservice Programs,
 6. Participate in other programs and events as needed,
 7. Serve on university, state, and national committees, and attend conferences, related to pesticide issues.

Each quarter, the PSEP reports its activities to the PAC. Below is a brief list of program accomplishments.

Manuals Completed:

National Pesticide Applicator Certification Core manual. Published by the EPA, this manual will be made available to all states and territories. Carolyn Randall,

MSU, PSEP Coordinator, is the main writer of the manual. The manual may be used with the National Core Exam. A Power Point presentation based on the manual produced by Washington State PSEP can be used as a training tool. EPA also plans to translate the manual and Power Point presentation into Spanish. MSU PSEP plans to adapt the manual and make it specific to Michigan. Two versions will be produced: a private core and a commercial core. They will replace Michigan's current Core manual, E-2195.

Regulatory Pest Management, E-2055. The Category 9 manual was completed and a pool of 105 exam questions were submitted to MDA. The MSU Bulletin Office will not print it since so few copies sell each year. It will be available as a pdf download from the MSU PSEP website and from the Bulletin Office website.

Manuals in Progress:

Aquatic Pest Management, E-2035. Major revisions were made to the Category 5 manual particularly to Chapter I on Laws and Regulations. Staff from MDEQ reviewed the proposed changes and supplied new permit forms for the appendices.

Microbial Pest Management, E-2621. Chapters 1,2 and 3 and 7 have been reviewed by industry reps and are completed. Further work is needed on Chapters 4, 5, and 6.

Aerial Application of Agricultural Chemicals, Publication Number E2019.

Ornamental Pest Management Commercial Applicator Training Manual, Publication Number E2291.

Public Health Pest Management, Publication Number E-2049.

Other Pesticide Education Materials:

Website development - Several improvements and updates were made to the Pesticide Safety Education Website including posting new bulletins and slide sets, updating links, and updating the PSEP logo to include the word "Safety." About 40 web pages were updated. New pages were also added to the site including the new Library Resources web page. Some other new posts included a script to Chapter 2, Part B of the Core manual, the 2005-2006 Certification Exam Schedule from MDA, a site where members of the National Core Manual Committee could download updated versions of the manuscript. The website was also reorganized somewhat with changes being made to URL addresses.

Newsletter - The Pesticide Notes Newsletter was sent out in November and December. The December issue contained important information on the seminar credit policy from MDA and how to write an agenda for credits.

Pesticide Education Resource Library - PSEP developed a resource library of pesticide education materials including books, video tapes, CD's, demonstration materials, and slide sets that Extension agents can use for pesticide education training. The database of materials was posted on the PSEP web site. Agents must visit the Pesticide Safety Education office to check out materials.

Entomology 477 CD -To assist field crop extension agents with pesticide training, each agent was provided with a CD containing pesticide-related lectures from, ENT 477. The CD contained approximately 30 lectures on topics ranging from pesticide types, modes of action, regulations, and issues.

Spray Table - Michigan PSEP received a Spray Table Demonstration Kit that was supported by a grant from USDA. Michigan was among 14 states to receive this material. The kit is used for hands-on training activities to demonstrate technology, pattern quality, and drift tendencies for spray nozzles. It includes a self-enclosed table with pump, a two- section boom with three nozzle body assemblies, dual pressure controls, and a pattern collector. A variety of spray nozzles are included along with special accent lighting to help emphasize the spray nozzle characteristics. A fan is included to demonstrate drift.

Training slide set - The slide set *Pesticide Storage and Handling* was updated and converted to a Power Point presentation and posted on the PSEP Web site for download by extension agents for use in training.

Spanish Edition of the Pesticide Emergency Information Bulletin, Publication Number AM37SP

Pesticide Emergency Information, AM37

- *West Nile Virus (WNV) 2005* – The PAC was kept informed regarding the cases of WNV in birds, horses, and humans. At the end of 2005, there were 51 cases of human WNV. The locations and numbers of the victims per county are as follows: Wayne 25, Kent 9, Oakland 4, St. Clair 1, Berrien 1, Macomb 1, Ottawa 1, Washtenaw 1, Genesee 1, Ingham 1, Clinton 1 and Grand Traverse 2. Four of these patients died: 3 from Wayne and 1 from Kent counties. The number of confirmed WNV infections in horses was 21 and 131 cases of WNV was confirmed in corvid birds. Nationwide there have been 2,653 confirmed humans cases of WNV with 91 cases resulting in death.

Another arboviral disease namely Eastern Equine Encephalitis (EEE) was confirmed in 7 Whitetail deer in 2005. This is the first time in this state that deer have been reported with this disease. Five confirmed cases of EEE in horses were reported.

- *Michigan Occupational Pesticide Illness and Injury Project*: The Michigan Department of Community Health (MDCH) provides quarterly updates of the Michigan Occupational Pesticide Illness and Injury Surveillance Project. The project attempts to capture all acute pesticide illnesses resulting from

occupational use. MDA use investigations are included in this report if there is a human exposure reported to the department.

MDCH informed the committee regarding new rules that established requirements for reporting of known or suspected injury or illness associated with exposure to mercury, arsenic, cadmium, and pesticides. This rule requires that labs report any request for analysis of select heavy metals and acetylcholine inhibition tests to MDCH. MDCH published two booklets. The first entitled, "Occupational Pesticide Illness and Injury Surveillance in Michigan documenting 196 pesticide related illnesses that occurred from mid-2001 through 2003. The second publication is entitled, "What You Need to Know About Pesticides and Your Health."

- *Food Quality Protection Act:* Dr. Jack Zabik from Dow Chemical Company gave a presentation titled "FQPA Update from an Industry Perspective". He discussed the FQPA factors, aggregate risks and cumulative risks used to assess pesticides and he discussed how the models were developed to assess exposures. The EPA model is titled "Lifeline" and can be found at www.thelifelinegroup.org. The industry model is titled "CARES" and can be found at www.cares.ilsa.org. The EPA will similarly reassess all inert ingredients of pesticide products by August 2006.
- *IPM Model Review:* The MDA Certification Manager distributed a copy of A Model Integrated Pest Management Program For Michigan's Schools. This model program has been successfully used in some Southeastern Michigan schools. The committee was asked to review the model and send any comments to the department via e-mail by February 14, 2005. MDA is required by Act 24 amendments to Act 451 to have an IPM program available for schools. A copy of the final document will be shared with the PAC and will be posted on the MDA website (www.michigan.gov/mda). A copy of the final document was given to the Michigan Department of Education and the Michigan Family Independence Agency.
- *Soybean Rust:* Soybean Rust is an invasive pathogen of soybeans and other legumes that can cause up to an 80% crop yield loss. Although not yet found in Michigan, MDA conducted the first survey for this pest in 2004. In the future MDA in cooperation with MSU will continue to survey for this invasive pest. In response to the probable arrival of this pest in Michigan, MDA has requested Section 18 quarantine exemptions for use on soybeans. Quarantine exemptions are effective for a period of three years. All of the products that were requested have been approved. The section 18 labels are available on the MDA website. MDA also has a Soybean Rust Action Plan in place. This plan can be accessed on the MDA website. It is highly likely that soybean rust will make it to Michigan during the 2005 growing season but will eventually find its way north with the severity dependent upon the soybean growth cycle when the disease arrives.

MDA is currently working on a National section 18 quarantine exemption for myclobutanil, propiconazole, and tebuconazole for use on the minor legumes including dry beans, snap beans, and peas.

OTHER ISSUES UNDER DISCUSSION

- *Emergency Management: MIHAN/Eteam:* PAC members were given an overview of how MDA would respond to an emergency event. A demonstration was held in the MDA computer training facility.
- Regulation 637: PAC members were updated on the changes on Regulation 637 and the working committee's progress.
- Issues Regarding Certification/Recertification: Several issues were discussed including: the regulation of black mold removal, creating a category for black mold removal, MDA regulation of home inspectors, and reciprocal agreements with Ohio, Wisconsin, and Indiana.
- Integration of pesticide enforcement into the Integrated Management of Pesticide Application, Certification, and Tracking (IMPACT) system.
- Quarterly Enforcement Updates.
- Recognition of Tim Doppel's resignation after 16 years of serving on the PAC.

ENFORCEMENT ACTIONS TAKEN UNDER ACT 451, PART 83, PESTICIDE CONTROL

In FY'05, the pesticide program's enforcement activities continued to address significant issues of pesticide misuse, uncertified or unregistered applicators, unlicensed commercial pesticide applicator firms, and non-compliance with state statutory requirements. The enforcement program oversees inspection and investigation activities for the pesticide section. These activities include:

- Conducting pesticide use/misuse investigations
- Inspecting pesticide producing establishments and pesticide marketplace locations
- Auditing of restricted use pesticide (RUP) dealer sales and commercial applicator records
- Addressing pesticide use violations related to food safety and farm worker protection
- Implementing federal and state targeted compliance monitoring initiatives

Other enforcement activities include marketplace surveillance for unregistered pesticides and proper pesticide labeling, contacts with applicators and RUP dealers to assure compliance with certification and licensing requirements, and special projects like IPM requirements in schools and the federal Urban Initiative.

Use Investigations

MDA conducted 182 pesticide use investigations (UIs), of which 41 occurred in agricultural situations and 141 occurred in non-agricultural situations. Of the agricultural use investigations, 10 involved commercial applicator firms, 8 aerial application firms, 21 private applicators, and 2 unknown.

Of the 141 Non-Ag UIs, 5 involved homeowners, 3 were unclassified, 2 involved schools, 1 involved a government entity, and 130 involved commercial applicators in the following categories:

Category of Commercial Applications	Number of FY '04 Use Investigations
Homeowner	5
Schools	2
Wood Treatment (2A)	1
Turf Grass (3A)	71
Ornamentals (3B)	23
Aquatic (5)	2
Right of Way (6)	21
General Pest Management (7A)	28
Wood Destroying Organisms (7B)	7
Vertebrate Pest Management (7D)	1
Commercial Mosquito (7F)	3
Other Commercial	1

The total number of complaints (182) filed with MDA in FY'05 increased approximately 19% from the 153 filed in FY'04. This compares to a decrease of 20% from 2002 to 2003, and a 16% increase from FY 2003 to 2004.

Complaints were filed for numerous reasons as shown in the following table:

Complaint Allegations	Number of Cases
Drift	42
Not Licensed (Firm)	53
Misuse	39
Notification	14
Applicator Not certified (34)/ Not Registered (6)	40
Worker Protection Standard	5
Integrated Pest Management/Pesticide Use in Schools	2
Risk Benefit Information	3
PPE Issues	16
Exposure Concerns	35
No Consent for Services	9
Customer Information/Receipts	11
Spill Kit Issues	3
Mix/Load or Wash/Rinse Pad Issues	7
Posting	13
Misrepresentation of Pesticide Safety	2

UI Enforcement

MDA closed 71 of the 182 total FY'05 UIs during FY'05, noting that 93 of the complaints (51%) were received after June 1, 2005. During FY'04, MDA implemented a process to track the age of an investigation so that regional offices and the central office can monitor the time required to close cases and work toward our goal to close all investigations within 90 days of receiving the complaint.

The following table provides a general idea of the public sector that contacted MDA in FY'05 with complaints concerning pesticides.

Sources	Number of Complaints
Private Citizens	64%
Anonymous	14%
MDA, PPPM Division	11%
Other Government Agencies	6%
Business	5%

During FY'05, MDA regional offices continued to take action on investigations that resulted in the determination that no violations either occurred or could be confirmed. The regional offices closed those cases with disposition or advisory letters. Investigations that resulted in the determination of a low-level violation continued to result in a warning letter being issued from the regional office under signature of the regional supervisor. The majority of these letters required a 20-day written response to MDA from the firm/individual involved. Any enforcement action more severe than a warning letter continues to be coordinated through the MDA Lansing office and the Pesticide Enforcement Manager. It should be noted that MDA's Enforcement Manager position was vacant from September 27, 2004 to January 15, 2005.

MDA continued to issue Notices of Intent (NOIs) that outline MDA's intent to initiate administrative proceedings or criminal prosecution actions. The NOI provides MDA an opportunity for a settlement in the form of a consent agreement and final order as well as a civil penalty.

FY'05 Use Investigation Enforcement Actions

Enforcement Action	2003	2004	2005
None required	8	9	5
Disposition Letter	3	12	19
Advisory Letter	11	4	5
Warning Letter	39	30	29
Informal Hearing	2	1	1
Notice of Intent	5	12	9
Prosecutions	0	0	3
Not yet closed	64	83	111
Withdrawn	0	2	0
TOTAL	132	153	182

The NOI negotiation process has also afforded the opportunity for supplemental environmental projects relating to pesticide use issues. In FY'05, \$5,000 was used to sponsor supplemental environmental projects.

Planned Use Inspections

MDA conducted 83 Planned Use Inspections (PUIs) in FY'05, representing a 121% achievement of the FY'05 MDA/EPA grant commitment. Of these, 25 were agricultural PUIs; 21 of which involved private applicators, and 4 of which were with commercial firms. MDA conducted 58 PUIs at non-agricultural sites, 48 of which were conducted at commercial pesticide application firms.

Pesticide Contacts

During the outdoor application season, MDA conducted 119 road check inspections. Most of these inspections involve the observation of a pesticide application. At a minimum, MDA inspects the application equipment and applicator records along with conducting a comprehensive interview with the applicator. The focus of the inspection is to identify the areas of Act 451 and Regulations 636 and 637 in which the firm is in compliance. Inspections target pesticide label use directions for the products being used, licensing, certification, customer service agreements, application information and personal protective equipment. Most road checks are conducted with firms working in the turf and ornamental industry.

MDA regions issued 412 contacts to commercial firms regarding licensing issues (notification of requirements, response to inquiry, applicant interviews, or follow-up on non-renewals). MDA made 27 contacts with IPM regulated facilities, primarily with schools regarding IPM and parental notification requirements. MDA issued 305 Stop Orders from the Lansing Office to pesticide application businesses that did not renew their license for 2005 in a timely manner.

FY '05 Pesticide Contacts

Contacts	Number of Contacts
EAB Regulatory	413
PABL Non Renewal Lansing SPCs	305
EAB Regulatory Contacts	147
Road Checks	119
PABL Non Renewal Follow-ups by Regional Staff	75
Application Compliance Concerns	38
IPM/Parental Notification	27
UI or PUI Follow-ups	14
Certification	10
WPS Contacts	8
Other	19

From the FY'05 contacts, MDA issued 501 Stop Prohibited Conduct Orders, 22 warning letters, 3 advisory letters, 1 disposition letter, 2 Prosecutions, and 2 Notices of Intent.

Producer Establishment Inspections

During FY'05, MDA conducted 36 Pesticide Producer Establishment Inspections (PEIs), the majority of which have already been referred to EPA for enforcement action or review. These inspections represent an accomplishment of 100% of the commitment in this program area for FY'05. Nineteen inspections were conducted at bulk repackagers. Nine inspections specifically included WPS product label reviews for a total of 22 pesticide product label reviews. Eight inspections specifically targeted antimicrobial pesticides with a total of 10 different documentary samples collected for label reviews.

Federal Marketplace Inspections

During FY'05, MDA conducted 23 federal Marketplace Inspections (MPIs), the majority of which have been referred to EPA for enforcement action or review. These inspections represent a 144% accomplishment of the commitment in this program area for FY'05. Eight inspections resulted in physical samples being collected. MDA also assisted EPA by conducting 5 import inspections at both Port Huron and Detroit.

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David Schwailler	Representing	Agricultural Chemical Industry
Michael Schiffer	Representing	Licensed Aerial Applicators
Teresa Hendricks	Representing	Farm Employees
Russell Ives	Representing	Michigan Pest Control Association
Philip J. Korson II	Representing	Agricultural Producers
R. Michael Kelly, MD	Representing	Medical or Health Science Profession Experienced in Toxicology of Pesticides
Roger Wabeke	Representing	Non-Governmental Organizations with Human Health Interests
William Weil, MD	Representing	Non-Governmental Organizations for Environmental Preservation